

The Transvaal Burgher Camps

South Africa

BY

LIEUT.-COL. S. J. THOMSON, C.I.E., I.M.S

SANITARY COMMISSIONER, UNITED PROVINCES, INDIA,
LATE DIRECTOR OF BURGHIER CAMPS, TRANSVAAL, SOUTH AFRICA.

Copies may be had from Messrs. Hugh Rees & Co., Ltd.,
124 Pall Mall, London, S. W.

Allahabad :

Printed at the Pioneer Press.

1904.

Price Rupees 2.

CONTENTS.

INTRODUCTION.

CHAPTER I.—History of the Camps.

CHAPTER II.—General Plan of Camps.

CHAPTER III.—Establishment.

CHAPTER IV.—Medical.

CHAPTER V.—Conservancy.

CHAPTER VI.—Water Supply.

CHAPTER VII.—Segregation and Disinfection.

CHAPTER VIII.—Food.

CHAPTER IX.—Conclusion.

INTRODUCTION.

AT the end of 1901, the Colonial Secretary addressed the Indian Government on the subject of the deputation of two senior officers of the Indian Medical Service, skilled in the management and control of camps, to take charge of the Burgher Camps in the Transvaal and Orange River Colony respectively. As the result of the correspondence, Colonel J. S. Wilkins, D.S.O., of the Bombay Medical Department, and myself were deputed. I arrived in South Africa at the end of February 1902, and at once entered upon my duties as Director of the Transvaal Burgher Camps. Colonel Wilkins arrived shortly afterwards, and assumed charge of those of the Orange River Colony. Although I believe the general system of administration was much the same in both colonies, the two appointments were quite distinct, and the facts now set forth only relate to the procedure in the Transvaal. In addition to those in the Transvaal itself, subsidiary camps were established in Natal to take the excess population from the former colony. These camps were financed by me, but were under the general administration of Sir Thomas Murray. Two large and important camps were also situated outside the Transvaal on the Bechuana Land border, *viz.*, at Mafeking and

Vryburg. The population consisted largely of rebels and were also placed under my administration.

I was permitted to take with me from India three officers who had served under me in famine and plague work in that country as my personal staff. They were Captain J. C. Robertson, of the Indian Medical Service, Mr. C. E. W. Sands, of the Indian Police, and Lieutenant R. W. Henderson, of the Bengal Cavalry. The last named officer, however, subsequently joined Steinackers Horse, and was only with me for some $2\frac{1}{2}$ months. Major W. Anstruther-Thomson of the Royal Horse Guards also joined my staff on my arrival in South Africa. He served with me until the conclusion of peace, when he returned to England, while Captain Robertson, I.M.S., and Mr. Sands remained with me until I relinquished charge of my duties in November. I received the most loyal and valuable assistance from these officers.

Peace was proclaimed on 1st June 1902, but subsequently, in conformity with the instructions of His Excellency Lord Milner, High Commissioner, I remained in South Africa conducting repatriation operations through the medium of the Burgher Camps until the complete establishment of a regular repatriation department. I eventually left South Africa at the end of November—the population in the Burgher Camps having by

that time been reduced to some 10,000 souls. The camps were finally closed in February 1903.

The primary function of the camps was to accommodate the wives and children of burghers on commando. But as time progressed, their sphere of work was considerably enlarged. They also accommodated the National Scouts when sick or on leave, they received the earlier surrenders, and on peace being proclaimed, also took in some thousands of men who then gave up their arms and joined their families in the camps. Very large numbers of prisoners of war also, as they returned from abroad, were similarly dealt with.

The Director of Burgher Camps controlled all branches of camp administration. He was provided with a Financial Controller and an adequate staff, and he purchased all supplies through a Commissariat Department which was under the immediate control of the Chief Buyer and his officials. Each camp was guarded by block houses garrisoned by regulars under the direct orders of the officer in command, but a separate armed police force was also maintained. Every camp had its own artisans under the superintendence of skilled engineers, and also its separate transport and conservancy staffs. To each was attached a school and orphanage, and a Dutch pastor was appointed to conduct divine service at each centre. Store-keepers, accountants and clerks

formed a portion of every establishment. A Superintendent, sometimes provided with an assistant, was in chief command of each, while a Senior Medical Officer with Assistant Medical Officers, matrons and nurses, controlled the medical and sanitary procedure. All were directly subordinate to the Director of Burgher Camps, except in the case of schoolmasters, who were under the orders of the Educational Department. Indeed, every camp was a distinct unit, containing within itself all the machinery for its conduct and maintenance. Details of such matters are given later on.

The position of the Director of the Burgher Camps was probably unique in the annals of sanitary history. With powers under martial law to insist on orders being carried out, and with adequate funds to provide the necessary machinery in the form of men and plant, an unusual opportunity was offered of determining whether it is possible to maintain a large body of men, women and children in large camps, in good health. It is submitted that the fact was established, as a reference to the figures given in Chapters I and IV will show. So far as I am aware, no experiment on such a scale has been carried out before, and it has been thought therefore that some of the lessons learnt in the present instance may possibly prove of interest and utility should more or less similar circumstances ever arise in the future. It is probable that under the varying conditions

of existence prevailing in our vast Colonial Empire such will be the case.

It is believed moreover that no manual of instructions for the conduct of large camps has hitherto been published in a collected form as the result of actual experience. These facts must be the excuse for the appearance of this brief history of the working of the Transvaal Burgher Camps. It is published with the permission of the Secretaries of State for War and the Colonies.

S. J. THOMSON.

CHAPTER I.

HISTORY OF THE CAMPS.

THE history of the origin of the Burgher Camps is well known. Towards the end of 1900 military requirements rendered it desirable to compel the inhabitants to evacuate their farms, and it became necessary therefore to provide accommodation for such evicted people in what were then known as concentration camps. For a considerable time the death-rate in such camps was deplorably high, and this despite all the efforts of the authorities to reduce it. Doubtless residence in such camps was at first attended with hardship. The sites had been necessarily selected originally more from a military than a sanitary standpoint, since it was essential to so place them that they could be adequately protected by block houses. Then tents, provisions, etc., had all to come from the coast, hundreds of miles away, and over railways choked with military traffic. Moreover, it was frequently the case that trains carrying food supplies, tents, clothing, etc., for the use of their wives and children in the camps were blown up by the Boers themselves, of course in ignorance of the destination for which such goods were intended. By far the greatest cause of disease, however, was the constant re-infection of a camp by the

arrival of large convoys of people from outside, swept up by the columns and dropped there for shelter and support. Probably no measure approached in utility the more rigid and complete system of isolation and disinfection which was subsequently introduced. Looking over the causes of deaths, measles is seen to have been extraordinarily rife and fatal. The Boer people being mostly pastoral and living in small centres at great distances from each other, this disease had never prevailed in an epidemic form in the country. The result was that when it struck a large community of persons with no acquired or inherited immunity, it raged in a particularly virulent manner and carried off adults as well as children, just indeed as small-pox ravaged the absolutely non-immune Indians in North America. It is a fact also no doubt that the sequelæ of measles, such as pneumonia and bronchitis, were more fatal in a camp than they would have been in a warmer and more protected situation. Much has been said about the want of personal cleanliness among the Boers, but it must be remembered that ablutions are apt to be less frequent and popular when water has to be laboriously brought from considerable distances, as is so often the case with farms on the veldt. When bath-rooms were provided in the camps, they were very freely and regularly used. Nevertheless it is a fact that the Boer's notion of sanitation as understood by Englishmen is very

vague, and all classes resort for purposes of nature to the open country. This custom, probably innocuous enough under the conditions of existence on an isolated homestead, made it extremely difficult to maintain the cleanliness of a camp site, and it was very long before the people could be brought to see that foul matters and dirty water could not be most satisfactorily disposed of by the simple process of flinging them out of the tent. It was found indeed that such proceedings had hopelessly fouled certain camps, and the removal of the people to a fresh site was followed by the best results. In a latter chapter, the procedure which was found most successful is described in detail.

Again, it is difficult to realize the amount of ignorance which prevails among the lower classes, especially those known as "back country Boers." This ignorance is of course accompanied by extreme suspicion. In one camp, vaccination was suddenly rejected by most of the people, and the explanation was that the matter from a ruptured vesicle had run down and excoriated the skin so that the scar resembled a broad arrow with the vesicle at the apex. Certain wiseacres then discovered that the children were being branded with the Government mark! In another camp the attendance at the school suddenly fell off very greatly. It appeared that certain mothers noticed a kind of kindergarten exercise being carried on which consisted in holding the hands

straight above the head. It was recognised that the children were being taught to be "hands uppers"!

A very serious result of this ignorance and suspicion in the earlier days of the camps was the extensive concealment of disease which was practised. Very few would go to hospital if they could avoid it, and indeed to the very last, although maternity hospitals were provided, women much preferred to be confined in their own tents. But after a certain time, the good intentions and skill of the doctors were recognised by nearly all, and when I assumed charge of the department, the hospitals were already most popular institutions, and concealment of disease was comparatively rare. Nevertheless, as will be shown later on, it was absolutely necessary to maintain a special staff to visit every tent every day.

I have not attempted to describe conditions which existed, or offer remarks on any procedure which prevailed, prior to my assuming charge of the camps. I have only endeavoured to deal with circumstances within my own observation and knowledge. Much hostile criticism of the administration of the camps in early days has been spoken and written, and this was not unnatural when the high death-rate was an undoubted fact. But only those who, like myself, have had practical and close acquaintance with the comparatively light difficulties in later days, can recognise and

appreciate the enormous task set before those who first undertook the organization and control of these camps. In times of peace, preparation would have preceded the collection of people in any locality; in times of war it was impossible to foresee when and where such requirements might arise. Military operations could not await such preparations, and the best possible had to be done to meet emergencies as they arose.

It is but right to add that when I assumed charge of the camps, matters had begun to mend, and many important improvements had been initiated.

The following table shows the mortality per mille in the whole of the Transvaal Camps during the period of from 1st January to 31st December 1902 :—

Death-rate in Transvaal Burgher Camps.

Month.	Average population.	Death-rate per mille per annum.
January 1902	55,973	136·9
February	52,115	70·5
March	48,149	44·4
April	45,611	28·4
May	44,816	26·0
June	44,356	19·9
July	39,567	23·0
August	33,951	14·8
September	24,870	21·6
October	17,246	25·7
November	12,148	15·7
December	6,793	22·9

The figures may be left to speak for themselves, but attention may be drawn to the fact that, up to June, the population of the camps consisted mostly of women and young children, and that nearly all adult males capable of bearing arms were in the field. The latter class is just the one that lowers a death-rate, so that the low mortality in such an unfavourable community as the one under consideration becomes the more satisfactory.

CHAPTER II.

GENERAL PLAN OF CAMPS.

Camps were situated at—

Irene.
Pretoria (Mentjes Kop).
Johannesberg.
Nylstroom.
Pietersberg.
Klerksdorp.
Potchefstroom.
Krugersdorp.
Vereeniging.
Balmoral.
Middleburgh.
Belfast.
Barberton.
Heidelberg.
Standerton.
Volksrust.
Vryburg.
Mafeking.
Sitlagoli.

There were also certain posts where small temporary camps were organized. Pietersberg was rushed by the enemy, and had for military reasons to be removed to Natal until after the peace, when the people were brought back to the Transvaal. Nylstroom was also held to

be unsafe and was removed to Irene, where a second camp was established. Pretoria (Mentjes Kop) and Sitlagoli were purely National Scouts camps.

There were thus altogether nineteen in the Transvaal, including those of Mafeking and Vryburg just over the frontier, and, as a reference to a map will show, they were all situated on the line of rail. They varied considerably in shape and size according to locality and requirements, but the following was the general scheme adopted. The camp consisted of blocks or sections containing a variable number of tents, which was, however, usually about 25. Broad roads divided the blocks, and in these roads were situated latrines, dustbins and the standposts for the water-supply. No conservancy buildings or structures were permitted in roads in which the water-supply standposts were situated. Receptacles for dirty water, etc., were usually also situated on the roads, but, for reasons given elsewhere, this was not invariably the case. The people would not use them if they had far to go to do so. The general hospital, and that for infectious diseases, were situated at a little distance from the Main Camp, and this was also the case as regards the Observation and Contact Camps (*vide* Chapter VII). The school and orphanage occupied a separate block on the edge of the Main Camp, and the church, orderly room, mess rooms, officials quarters, stores,

offices, dispensary, etc., were also placed on the confines of the inhabited area, and on as methodical a system as the requirements of protection and the configuration of the country would allow. All camps were surrounded with barbed wire fences, and were protected by block houses situated outside the fence. The last was a very necessary precaution, less to overawe the inhabitants of the camp than to prevent their being rushed by the enemy as was the case at Pietersburg, where the surrenders were carried off, the staff "held up," and the stores looted. In the latter stages of the war, when food and clothing were so scarce in the commandos, many longing eyes must have been cast by the enemy on the depôts and transport within the fences, and very stringent measures had to be taken to prevent the conveyance of food, etc., from the inmates to their friends in the field. Very little such leakage, however, occurred, though no doubt small quantities were passed out by Kaffir menials despite the vigilance of the camp police. Each camp, as already stated, was divided into sections comprising usually about 25 tents. One such section, somewhat removed from the others, was reserved for the families of the National Scouts. The feeling against these people was intense, and no little tact and firmness were necessary on the part of the Superintendent to avoid disturbances between them and the relations of men still on commando. They had to be rationed on different days to

those on which the general population received their supplies at the stores, and, looking back, it appears surprising that no serious conflict ever occurred between the burghers and the "hand uppers,"—especially when the surrenders came in in large numbers at the declaration of peace. As a matter of fact, however, nothing serious ever did occur, and this speaks well for the discipline of the camps and the self-command of the people.

The form of tent usually employed was the ordinary bell tent, and, as a rule, four or five people occupied it. When the family was larger than this, a second tent was given, or a marquee was provided. All these came from England, and served their purpose very well, but for the circumstances under which a marquee is required I prefer the pattern made and used in India and known as the E. P. or European Privates' tent. It is somewhat heavier, but is warmer and stronger, and bamboos for tent poles are distinctly better than the wooden ones supplied from England. In a country like South Africa, however, where thunder storms are frequent and violent, the iron peg at the top of the bamboo pole is dangerous. Several such tents were struck by lightning and the inmates seriously injured, though no lives were actually lost. The difficulty was met by putting non-conducting glass soda water bottles on the pegs, or by fixing lightning conductors to them. The drawback is one

easily removed. For hospital purposes all were unanimous as to the advantages of the E. P. tent. It was cooler in summer and warmer in winter. In the case of all kinds of tents it was customary to build a little wall about 6 inches high of "green," i.e., unburnt, bricks, all round and just under the curtain of the tent. This made it much warmer, and kept out the wet. The floor of the area enclosed by the wall was made of the earth from ant heaps crushed, well rammed down, and mixed with oil. In hospitals, and in certain other cases, a top dressing of tar was added. This made a most excellent and damp-proof floor, and cocoanut matting, which largely resisted the attacks of white ants, made a tent very comfortable. Mess tents and certain others also had small "green" brick stoves built against one end, while the use of kerosine stoves in hospital tents served to keep the temperature at a reasonable height. Nevertheless it was found useful and desirable to erect buildings of "green" brick and galvanized iron, and provided with fireplaces, for the reception of persons suffering from lung diseases or of very young children. The cold in the "upper veldt" country in winter was intense.

Very useful huts were also made by stretching and nailing canvas over wooden frames, and lining the interior up to the eaves with blankets or other thick material. The burghers themselves showed great ingenuity

in making their dwellings comfortable. Some of the floors I noticed were still sound and uninjured months after the tents had been struck and the spot vacated. One family had utilized all the empty preserved milk tins served out to them, in making a sort of "parquet" floor by setting the tins side by side and end on in the ground, and filling in the interstices with a mixture of ant earth and oil. All built little walls round the tent to keep out the wet, and so efficient were these simple plans that, even after heavy rain, complaints were very seldom made of the interior of a tent being damp or flooded. The people made very light of such troubles as cold and wet weather, and indeed the custom of "trekking" long distances is so common in the country that they were most of them quite familiar with the conditions of camp life and its vicissitudes.

The Boer women did their own cooking, and every family had its own stove: sometimes one brought with it from the farm, sometimes ingeniously constructed out of an old bath or stable bucket. Wood and coal were supplied free to them. They baked their own bread in ovens constructed for them of the well-known pattern of the country. Hot water for general use or for making their beloved coffee was available night and day in large central tanks provided with taps. Sometimes public ovens were constructed, which served

both for cooking purposes and for heating water. But, as a rule, the women preferred to club together in small batches and to use their own ovens, and it was a general rule in the camps to as far as possible fall in with the custom and wishes of the people so long as these were not incompatible with discipline and health.

The interior of an average tent was by no means uncomfortable. It must be remembered that when people were evicted from their farms they were allowed to bring a large quantity of their goods and chattels to the camps with them, so that most tents were more or less well furnished with beds, chests of drawers, chairs, tables, stoves, etc. Musical instruments, sewing machines, clocks and such like articles were commonly to be found, and where any family was not provided with the requisite number of beds, chairs, etc., these were supplied to them by the Department from the workshops started and carried on by the Boers in each camp. Dogs and fowls brought in were allowed to remain, though the former had to be tied up at night and the latter kept in proper runs. Animals such as oxen, mules, etc., were also permitted to be retained, and the owner allowed to accompany them, while grazing, under a guard.

Attached to nearly every camp was a vegetable garden, plots in which were let out to Boers who were provided with implements

and seed and who were allowed to sell a certain proportion of the produce and retain the proceeds for themselves. Stores in which almost anything could be purchased were also erected by private firms who, subject to certain restrictions, were allowed to sell to all burghers who were in a position to purchase. The books of such firms were open to the inspection of the Camp Superintendent, and the scale of charges was regulated by them according to the rates obtaining in the nearest outside market. The amount of business done in those stores certainly did not indicate any great depth of poverty among the people, and the visitor who had noticed the cheap and homely dress of the women in the week days would have been startled to have seen the same people when they donned their finery to go to church on Sunday.

CHAPTER III.

ESTABLISHMENT.

THE headquarters staff was as follows :—

GENERAL ADMINISTRATION.

DIRECTOR :

- 1 Personal Assistant.
- 1 Assistant Director.
- 2 Travelling Inspectors.

The two latter officers were constantly on tour inspecting, and reporting to the Director.

- 2 Engineers.

These officers directed all the building and other works requiring skilled knowledge, such as waterworks, electrical plant, etc. All estimates and plans were drawn up by them and submitted to the Director for approval and sanction.

- 11 Clerks, typists and office boys.

FINANCIAL DEPARTMENT.

- 1 Financial Controller.
- 2 Travelling Accountants.

These last two officers were constantly on tour controlling and checking the camp accounts and stores, and reported direct to the Financial Controller.

- 8 Clerks, typists and office boys.

COMMISSARIAT DEPARTMENT.

1 Chief Buyer.

1 Assistant Buyer.

15 Clerks, typists and office boys.

Since practically nothing could be obtained locally, everything had to be purchased and brought up from the coast. The system was for the large firms at the seaports to send weekly telegraphic quotations to headquarters in Pretoria, and the best tenders were accepted by wire. Fresh vegetables were practically the only articles which could be purchased on the spot. When a tender was accepted, permits and passes were sent down signed by the Chief Buyer, and the necessary truckage indented for from the military railway authorities. The Director and his Deputy were granted power to issue warrants and permits, and the Burgher Camps Department had the first claim on the rolling-stock after the military requirements were satisfied. Some notion can be formed of the extent and importance of the system necessary to feed over 50,000 souls when it is remembered that it was impossible to procure supplies if arrangements broke down. Moreover, as every burgher returning to his farm took a month's ration for himself and family with him, large reserves had always to be kept up. Then there was the contingency that sections of the line might be temporarily in the hands of the enemy so that nothing could pass. A large central dépôt for reserve stores

was therefore established at Pretoria, from which supplies could always be sent when such emergencies arose.

Large quantities of clothing, engineering plant, tents, bedding, medical and other stores had also to be got up from Cape Town, East London, or Port Elizabeth, either from shipping firms, or as consignments from the Crown Agents to the Colonies. This question of supplies was probably the most anxious portion of the work of the administration.

The ordinary procedure was for the heads of the Financial and Commissariat Departments to control the routine work of their departments through their own subordinates. Both officers interviewed the Director every morning, and on these occasions all knotty questions were discussed and settled. All bills, after being passed by the Chief Buyer, were paid by the Financial Controller, whose accounts were periodically examined by the Government Auditors. The funds were supplied from the War Chest through the Chief Pay Master, and a general supervision of accounts was also exercised by the Financial Adviser to the Commander-in-Chief.

The Burgher Camps Department of the Transvaal also financed the Natal camps.

Financial statements were submitted to His Excellency the High Commissioner, and His Excellency the Commander-in-Chief, every month.

The ordinary establishment of a camp consisted of—

- 1 Superintendent.
- 1 Assistant Superintendent (where necessary).
- 1 Senior Medical Officer.
- 2 or more Junior Medical Officers, according to requirements.
- 1 Dispenser.
- 1 Hospital Matron, with staff of Nurses according to requirements.
- 1 Camp Matron with necessary staff.
- 1 Relief Matron ditto.
- 1 Store-keeper.
- 1 Assistant Store-keeper.
- 1 Accountant.
- 1 Assistant Accountant, where necessary.
- 2 or more Clerks, according to requirements.

Carpenters and other artisans, superintendents of factories where established, conservancy and transport officials, etc.

There was also a variable number of "Line Captains" and "Line Corporals" in charge of blocks and sections. These were surrendered Boers of good conduct and position, and drew pay from the Department. They were directly responsible to the Superintendent for all that happened in the block or section to which they were appointed. These men did very good work, and the adoption of the system doubtless obviated much friction.

The educational staff consisted of a Head Master and a Head Mistress, trained teachers according to requirements, and (in some camps) an Orphan Master and Mistress. This staff was subject to the discipline of the camp, but was directly under the orders of the Educational Department.

A variable number of Kaffir boys were also employed on menial duties in each camp.

A camp usually held about 3,000 souls, and never more than 5,000, which was regarded as a safe limit. Temporary churches were erected, and divine service held by the Dutch pastor attached to the camp.

All camps had post offices, and letters from burghers were regularly despatched and received, after they had been passed by the Camp Censor.

The most important appointment of course in each camp was that of Superintendent. He was invested with magisterial powers, and upon his tact and ability practically depended whether the camp was properly run or not. He was selected irrespective of any other consideration than that of fitness. Some were military officers and some were Colonial gentlemen who had shown special aptitude for administration. It was found necessary to make a few changes, but speaking of these officers as a whole, they discharged their duties with remarkable ability and deserved very well of the Government.

The Medical Officer had charge of the hospitals and advised the Superintendent on questions of sanitation. If the latter officer dissented from the medical authorities, the matter was referred to the Director. They were largely recruited from England, although a certain number were Colonial medical men. Hospital matrons and nurses were also partly recruited from England and partly in the Colonies. I cannot speak too highly of the doctors, matrons and nurses as a body. They were skilful and attentive, and generally of a good social status. It was interesting to see how easily the Boer girl probationers were managed and instructed by them.

The Camp Matron and her staff visited every tent every day and reported on its state of cleanliness or the existence of disease, where necessary. She also dealt with minor ailments not sufficiently serious to necessitate removal to hospital. She was assisted by a staff of assistants and Boer girl probationers.

The Relief Matron similarly visited tents to see where clothing, bedding, etc., were required. She was in charge of the relief stores of such articles attached to the camps. Her duties are described in the subjoined Circular Order.

RELIEF.

“The work of relief to the inmates of the camps shall be carried out through the Relief Matron and her Assistants, acting under the

Superintendent of the Camp and the Committee hereunder referred to."

The system will be on the following lines :—

1. The Relief Matron shall make herself acquainted with the requirements of each family in the camp. She may have assistants appointed by the Head Office, and as many others as are required, chosen from among the inmates.

2. She will organize a complete system of tent visiting.

3. She will have sole charge of all goods for free distribution.

4. A convenient dépôt will be provided for the reception of all parcels and articles for free distribution from whatever source.

5. A register will be kept of all parcels and articles received, giving the name of the donor, the date of receipt, and the manner of their disposal, also giving the name of the recipient, camp address or number, and date.

6. All distribution shall be made by the Relief Matron acting under an advisory Relief Committee. The Superintendent and the Senior Medical Officer (or an Assistant nominated by him) and the Relief Matron shall be *ex-officio* members of this Committee. Such other members from amongst the officials and other inmates of the camp shall be appointed, as the Superintendent may think fit, subject to the approval of the Head Office. Of these members two should be prominent burghers resident in the camp.

7. No donor, or representative of donors, not connected with the camp, shall be in any way concerned with the actual distribution. (This was to prevent preference being given to families of men on commando.)

8. The Superintendent shall appoint a Secretary to the Committee, and, wherever possible and desirable, the Secretary shall be a Dutch Reformed Minister, either the Camp Chaplain, or a pastoral visitor to the camp.

9. Articles supplied by the department for free distribution shall be entered at the depôt in a similar manner to that described in clause 5, and issued in like manner.

10. A stock of layettes for new born infants shall be kept for loan to the women needing such. These will be returned to the depôt when finished with.

11. A register shall be kept for such layettes, stating the date on which and to whom the same are issued, also the date of return and list of articles missing."

With this large staff of officials of such diverse social acquirements, tastes and habits, recruited from England, Canada, Australia, South Africa and other parts of the British Empire, it was surprising how little friction or ill-feeling occurred. I am inclined to think that this harmony was assisted by the establishment of several small messes instead of two or three large ones, in each camp.

CHAPTER IV.

MEDICAL.

THE sick in the camps were principally accommodated in marquees, or, where possible, in E. P. tents. These tents had ant-earth floors coated with tar and with a coping all round, and cocoanut matting was laid upon them. The beds were of iron, and these and the bedding were mostly imported from England, but the tables, bedside lockers and chairs, etc., were made in the camps. Kerosine oil stoves were provided to warm the tents, but "green" brick huts and canvas shelters with wood and iron frames were, as far as possible, used for the reception of children and lung cases. In some instances hotels and private houses were commandeered and used as hospitals. The diet scale was liberal and was modelled on that in use in St. Bartholomew's Hospital, London. Medicines and instruments were principally procured from the Army Medical Store Depôts. They were excellent in quality, and my requisitions were always most promptly and accurately complied with. The medical and nursing staffs were recruited partly in England, partly in the Colonies. As regards their duties, they are defined in the Circular below.

NURSING STAFF.

"Hospital Matron.

There shall be a Hospital Matron in each camp, who shall be a trained and certificated nurse of large experience, and have the qualification of being a good manager.

Her duties shall be to have the charge of the hospital, the control of the hospital nurses, probationers and servants, and generally to manage the hospital under the direction of the Medical Officer, subject to the control of the Superintendent of the camp.

Her staff shall consist of as many fully trained and partly trained nurses, probationers and servants as may be required.

Camp Matron.

There shall be a Camp Matron in each camp, who shall be a trained and certificated nurse of large experience. All cases of sickness in the camp, not in hospital, shall be under the direct care of the Camp Matron.

The scale of pay and allowances for the Camp Matron and staff shall be the same as for the Hospital Matrons department.

In camps of over 1,000 inhabitants and up to 2,000 inhabitants she shall have under her a trained nurse.

In camps of over 2,000 inhabitants she shall have an Assistant Camp Matron and one trained nurse for every 1,500 inhabitants over and above 2,000.

The Camp Matron shall herself select suitable girls from among the refugees to act as probationers.

As far as possible the Camp Matron shall divide the camp into districts containing about 1,000 inhabitants for herself and her assistant, and about 1,500 for each of the nurses.

Whilst there is an epidemic of measles, enteric, or other infectious disease in camp, there should not be less than four probationers for each district.

The probationers should visit each tent in their district every morning or every alternate morning. They should see that the interior of the tents are kept clean, and as far as possible inculcate personal cleanliness upon the inmates and their children.

They should make a list of all medical comforts ordered by the Medical Officer in the tents under their charge. They should also make a list of all cases of sickness, giving the number of the tent in which they occur.

These lists should be given to the Matron or the nurse of the particular district.

The Camp Matron, or her Assistant, or the nurse of the particular district, shall then visit each tent in which there is sickness. She shall direct what is to be done in all slight cases which do not require medical aid. She shall note, take temperatures, etc., of all cases which require the doctor's attention, in anticipation of his visit.

The Camp Matron, or her Assistant or the nurse of the district, shall accompany the Medical Officer when going round, and shall point out to him the tents in which there are cases requiring his care. She shall receive and note his instructions. She shall report all cases ordered to hospital to the Superintendent, who shall arrange for the removal of same to hospital.

The Camp Matron shall draw up a list of all medical comfort cards from the lists supplied by the probationers. She shall distribute these cards to the nurses according to districts, who shall draw the medical comforts and distribute them to the probationers concerned, who in turn shall see that they are distributed to the tents authorised to receive them.

Should the Camp Matron or one of her subordinates observe in any tent a case where clothing is needed, she should report the matter to the Superintendent, who will refer the matter to the Relief Matron for investigation and attention.

It is advisable that in every camp, especially during an epidemic, there should be a soup kitchen. This should be under the management of the Camp Matron, who may employ any voluntary assistance which may be forthcoming. The issue should be made by the Matron or her Assistant, to those entitled to receive it, and always through the probationers (they being acquainted with the people) who shall be in attendance. The

issue should be made two or three times a week.

The Camp Matron shall have the power to engage or dismiss the probationers belonging to her staff, notifying the Superintendent in every case.

If the Assistant Camp Matron or any of the nurses under her should, in the opinion of the Camp Matron, be inefficient or unsuited for the post she holds, she should report to the Superintendent accordingly, who should take such steps as may be necessary to discharge or otherwise employ the nurses concerned and to obtain others.

Probationers should have a uniform (which shall remain the property of the Department) and should make it from material selected and supplied by the Camp Matron. It should be different in pattern to that of the Hospital or Relief Matron's staff.

The Camp Matron should organise a mess for the nurses of her department.

The Superintendent will see that proper accommodation is provided for the Camp Matron and her staff as well as for the other matrons. A cook and servant should be employed to attend to the mess and the quarters of the various matrons' staff."

It will be noticed that the system provides for the treatment of slight ailments in the main camps, by a qualified official known as the Camp Matron. It will also be noticed that

Dutch girl probationers, selected from among the refugees, were employed and received salaries in both the Hospital and Camp Matrons' departments. At first considerable difficulty was found in obtaining suitable candidates for these posts—the girls were indolent and careless—but as time progressed, under the influence of the capable matrons and nurses, many of them developed an amount of intelligence and interest which led to a very useful acquaintance with details of nursing and treatment of minor diseases.

Special arrangements were made for such probationers as were attached to the Infectious Diseases Hospital, and are described below :—

“As instructed by the Director of Burgher Camps, I have the honor to request that, if you have not already done so, you will kindly make special arrangements for those probationers who are on duty in the Infectious Diseases Hospital. It is very undesirable that, after nursing an infectious patient, they should return to the Main Camp to sleep or take their meals. I am therefore to request that you will kindly provide special accommodation for them in the hospital compound, and arrange that they should live there. They should also be provided with overalls which they can put on over their uniform when going on duty and again lay aside when leaving the hospital. A special tent for this purpose should be pitched and

provided with disinfectants and washstand, and the overalls should be frequently disinfected and washed.

To compensate the probationers for the closer confinement and the additional inconveniences involved, I am to state that you have sanction to increase their pay from 2s. 6d. to 3s. 6d. per day.

These rules, of course, do not apply to any probationers except those in the Infectious Diseases Hospital."

It seemed very desirable in view of the great ignorance in medical matters existing among the people, to extend the opportunities of acquiring some slight knowledge of first aid, nursing, &c., and I therefore instituted ambulance classes in the camps and offered prizes for the more successful. The lectures and demonstrations given by the Medical Officers were fairly well attended, and it is hoped that the knowledge so disseminated may prove useful in many a lonely Boer home in times to come.

Every camp also had its Infectious Disease Hospital with its destructor for excreta, etc., and a well-equipped dispensary with a dispenser in charge was also established in each centre. It has been already mentioned that a section was set apart for the reception of patients who, although convalescent, were still possible disseminators of disease through the medium of secretions and excretions.

As regards the character of the diseases attended in the hospitals, these presented no unusual features. At first, measles and enteric fever were very prevalent, and, as was to be expected, there were numerous cases of pneumonia and bronchitis in the cold weather. No cases of black water fever were reported. A few cases of beriberi occurred among prisoners returned from abroad. There were no cases of plague in any of the camps, and very little small-pox. Scurvy was practically non-existent. I was at first inclined to think that malarial fever was more general than supposed, as many of the Medical Officers had come from countries where the disease was unknown and might therefore not readily recognize it, but as a result of more extended observation I arrived at the conclusion that malarial poisoning was practically confined to certain camps the inmates of which had come from the low country, and that among the residents upon the "high veldt" the disease was not common.

In the subjoined table are shown the deaths and death-rates and daily sick for each month in 1902. It will be seen that in January the death-rate was lamentably high, and that although lower in February, it was still very far from satisfactory. March showed a distinct improvement, and in April a very marked change was apparent. From thence on the figures are well worth consideration. The decline continued in May and June, but received a check in July,

when the mortality rose from 19·9 to 23·0. This was due to the influx of great numbers of surrendered Boers, and half starved people who had been following commandos in the field or eking out existence on isolated farms. But in August the death-rate again fell, and although it rose in October, this was largely accidental and was more than counterbalanced by the extremely low rate in November. The average death-rate for the last 9 months of the year was 22 per mille per annum, which, when the peculiar composition of the population is considered, must, I submit, be regarded as a remarkable result. The figures for the daily sick were never high. Too much importance must not, however, be attached to them as they stand, as a very large number of minor ailments were, in deference to the wishes of the people, attended in the tents of the patients themselves.

Table showing deaths and death-rates, and also daily sick, for each month

Month.	Deaths.	Death-rate per mille per annum.	Daily sick percentage of population.
January 1902 ...	639	136.9	4.2
February ...	295	70.5	3.1
March ...	174	44.4	2.1
April ...	106	28.4	1.3
May ...	98	26.0	1.2
June ...	74	19.9	1.1
July ...	76	23.0	.7
August ...	42	14.8	.9
September ...	45	21.6	1.2
October ...	37	25.7	1.1
November ...	16	15.7	1.0
December ...	13	22.9	1.6

In the next table is shown the mortality month by month from the principal causes. The first thing to notice is the practical disappearance of infectious diseases like measles and whooping cough, as soon as the isolation procedure was in efficient working order. Then as regards enteric fever, out of 238 deaths which occurred during the year, no less than 202 took place in the first three months, and the death-rate for the remaining nine months was only 1·31 per mille per annum, calculated on the average population for this period. Similar results are observable as regards dysentery and diarrhœa. I am unable to attribute this remarkable improvement to anything but improved sanitation and general well-being.

The instance of the camp at Klerksdorp is instructive. This camp returned 44 deaths from enteric fever in January, February and March. Very drastic changes were made in the organization and management of this camp, and only three deaths occurred in the remaining nine months of the year.

Pneumonia and bronchitis, after falling greatly in April, rose to very moderate proportions during the very cold weather in May, June and July.

Marasmus became practically extinct after March.

Table showing deaths from principal causes.

Month,	Total.	Measles.	Diarrhoea.	Dysentery.	Pneumonia and bronchitis.	Enteric fever.	Whooping cough.	Marasmus.	Heart disease.
January 1902 ...	639	26	88	31	68	112	15	56	12
February ...	295	13	27	15	31	65	8	23	12
March ...	174	18	13	19	11	25	11	11	6
April ...	106	11	7	3	14	15	6	2	5
May ...	98	...	8	5	32	6	1	2	3
June ...	74	...	3	6	32	3	...	4	5
July ...	76	...	2	...	39	5	...	2	5
August ...	42	1	...	...	19	...	...	...	2
September ...	45	...	2	...	10	3	...	1	2
October ...	37	3	2	2	7	2	...	...	...
November ...	16	2	2	1	1	1	...	1	...
December ...	13	...	1	1	2	1	...	...	...
Total ...	1,615	74	155	83	266	238	41	102	54

These results must be regarded as largely due to the skill, tact and devotion to duty exhibited by the medical and nursing staffs. As the health of the inmates of the camps improved, gloom and despondency gave place to cheerfulness and confidence, and the kindly feelings engendered will, I do not doubt, go far towards establishing better relations between the two races in the future.

CHAPTER V.

CONSERVANCY.

THE conservancy system of the camps was carried out by Kaffirs under the supervision of English and Boer officials. A certain number of latrines were situated in broad roads traversing the camp itself, while others were placed on the edge of the same. Originally, all latrines were placed on the confines of the inhabited area, but experience showed, first, that women and children would not use them at night, and, secondly, that no real risk attached to the locating of a latrine in the broad streets of a camp, if the buildings were kept in a good sanitary condition and with really impervious floors. They were divided into three classes, *viz.*, those for men, largely on the confines of the inhabited area, those for women and children, mostly within the camp, and, lastly, those which were only for night use, and which were provided with a lantern, and kept locked during the day. The last arrangement worked very satisfactorily. I attach great importance to the accessibility of such buildings for women and children and the provision of these night latrines.

The form of latrine employed was as follows. The first essential was an absolutely impervious floor draining into a bucket situat-

ed in a small water-tight masonry receptacle sunk in the ground. The edges of the masonry floor of the latrine were provided with a low wall to prevent fluids escaping on to the surrounding ground. When a latrine had been used by an individual who shortly afterwards developed infectious disease, the whole structure, seats, floor and buckets could be sluiced down with perchloride of mercury solution of a strength of 1 in 1,000. The seats were of wood, and the back portion was omitted, so that virtually they were half seats. This obviated a good deal of fouling from careless habits. A rail ran along the whole length of the latrine, against which the occupant could rest his or her back, and which prevented people from standing on the seats. Each compartment had a well-tarred iron bucket under the seat, and guide rails on the floor ensured that the bucket should always rest immediately under the aperture in the same. The ashes of the fuel used in the baking ovens were usually employed to cover the excreta in the pails. Buckets, as they required emptying, were moved into a small compartment at one end of the latrine, and disinfected. The erections were of wood and iron, and were cheap in character and could be easily removed. They permitted of free ventilation both at the upper and lower portions of the structure. They were used both as latrines and urinals. There were usually 8 to 12 seats in a latrine, and

one building usually served 80 to 100 persons. None were less than 100 yards from a tent.

All night-soil was removed morning and evening to shallow trenches regularly filled in, and situated about a mile from the camp. Such trenches were 18 inches deep, as it is known that at a lower depth the organisms concerned in the disintegration of organic matter diminish in number.

The cart employed for the purpose consisted of a large iron closed tank which occupied the posterior half of the vehicle, while the anterior half was enclosed by rails and held the empty clean buckets going to the latrine, and the dirty ones from thence on the return journey.

As regards the disposal of urine, it was soon found that as concerns tents occupied by women and children, the inmates simply would not go to the latrine at night for ordinary requirements, but resorted in the dark to the area round the tent. Recognizing this, every tent was provided with one or more large chamber utensils. The urine from these and the general sullage water used for ablutions, cooking, etc, were emptied by the burghers' wives into large covered iron receptacles situated in the broad streets of the camp, and were removed twice a day by carts of a special pattern discharging below. The advantage of this cart was that it could be wheeled over the trench and the driver had merely to open a trap door at the bottom of the cart by means

of a wheel at the head of the screw attached to it, and thus allow the fluid in the tank to run out into the trench beneath. A hopper on the top of the cart prevented spilling when the receptacles were emptied into the cart.

General rubbish was deposited by the Boer women and children in zinc and wood receptacles, also placed in the camp streets, and was removed on large trollies night and morning, taken to a safe distance, and burnt. These arrangements worked well and the camps were kept perfectly clean. The lesson learnt was that it is far better to have latrines, sullage water reservoirs and dustbins within such a reasonable distance from the tents that they are really and entirely used, rather than to place them at a distance which, though theoretically preferable, results in practice in their only being partially used, and the camp site being consequently contaminated by the committal of numerous nuisances under cover of darkness. Of course it is essential that the cleanliness of the latrines be made a subject of great care and attention.

It is needless to say that separate latrines were provided for the hospitals and the Observation and Contact camps. Destructors for enteric stools and other dangerous excretions were provided at the hospitals, and consisted practically of large iron Kaffir pots set in masonry, and with a furnace below and a chimney behind.

CHAPTER VI.

WATER-SUPPLY.

THE character and sufficiency of the water-supply to the camps was a matter of constant concern. As regards quantity, most of the camps were situated near large townships, and the selection of these had been of course to a large extent determined by the fact of a permanent water-supply being available. The normal population of such townships being largely reduced during the war, so many people being on commando, the supply was usually sufficient not only for the towns but for the camps as well. But this was not invariably the case, and where the supply was defective or suspicious, new sources were tapped and pipes laid down by the Camp Engineers and their staffs. In some instances the source of the supply was at some considerable distance from the block houses, but the works were never tampered with by the enemy. In one camp, river water had to be used, but there settling tanks were built, and the water boiled before issue. In other localities wells had, perforce, to be used. These were carefully covered in, and fitted with pumps—the water also being boiled. To this end, large iron tanks were erected with furnaces below. The water

passed from the boiling tanks in pipes to other closed tanks in which cooling took place, and from whence it could be drawn through taps. Periodical analyses were made of the contents of the wells and other sources of supply. When enteric fever appeared in a camp, the well which served the section in which the case had occurred was closed, cleaned out and disinfected, before it was again brought into use. Most of the camps, however, drew their supplies from closed in and protected springs. Where possible the water was conveyed in pipes by gravitation, but where this could not be arranged, oil engines were employed and the supply pumped up. In one camp the engine also drove a dynamo which served to light the camp streets, hospitals, and officials' quarters, by electricity.

Standposts, situated in the main streets other than those occupied by conservancy buildings, brought the water within easy reach of the inmates of the camp. At first some difficulty was found in inducing people to be careful in turning off the taps, and large pools resulted round the standposts, forming a very favourable breeding ground for mosquitoes. Such a condition was of course likely to result in the spread of malarial poisoning, but the difficulty was presently obviated by a simple and very effective plan. A considerable excavation, about 4 feet deep and about 10 feet in diameter, was dug all round the standpost,

and this was then filled in with broken bricks in cubes of about 4 inches, up to the level of the ground. The spilt water rapidly percolated down through the interstices between the broken bricks and thence ran away through the soil, leaving the surface clean and dry. The formation in most of the camps was porous, and as sloping ground was selected, any water-logging of a site was practically unknown. Drains were constructed all over the camp, and were merely shallow cuttings in the ground kept free from obstruction in their course. Even after heavy rain, water passed readily downwards and from the site.

All camps were provided with tanks and furnaces from which water could be drawn through taps for cooking and ablution and for the preparation of the much-loved coffee.

Bath and washing houses were also commonly provided with similar hot-water tanks.

In connection with the question of water-supply, mention may be made of the success which attended the introduction of arrangements for washing the clothes and person. The Boer is usually supposed to be little prone to cleanliness, but it was found that when these facilities were offered to the inmates of the camps, the bath-houses were always largely utilized and were very popular, and that the women and girls washed their household and personal clothing regularly. At two or three camps it was found possible, by directing a

stream into a masonry tank, to make a very fair swimming bath, and this was much appreciated. I am of opinion that these measures were very effective in restoring and maintaining health, and it is quite possible that habits thus engendered may persist after the return of the burghers to their farms.

CHAPTER VII.

SEGREGATION AND DISINFECTION.

IT has been stated in an earlier chapter that probably no measure was more effective in arresting disease than the careful observance of the rules laid down for the observation of suspected, and the segregation of infected persons, and their companions. The rules as issued in Circular Order No. 126 are given below.

"I have the honour to issue the following instructions concerning the procedure to be adopted in the laying out and reconstruction of camps.

Omitting houses and tents for the staff, and those used for educational purposes, stores, workshops, etc., the camp will consist of—

I.—*The Main Camp.*

II.—*An Observation Camp.*—This will be a small camp, situated on the edge of, but separate from, the Main Camp, in which all new arrivals, whether from outside or from another camp, should be placed and kept under observation for 3 weeks or for such longer period as the Medical Officer may consider necessary. During this time a careful watch must be kept on the inmates for the detection of incipient infectious and contagious

diseases, such as enteric fever, measles, scarlet fever, etc., while scurvy, marasmus and debility should be treated by the issue of extra food, lime juice, etc.

If at the end of 3 weeks, a family remains free from infectious disease, it may be drafted into the Main Camp.

III.—*General Hospital*.—This should be situated to one side of, but not above, the Main Camp, and at a suitable distance from it.

IV.—*An Infectious Disease Hospital*.—This should be separate from the General Hospital, and below it, and should have a few tents for the accommodation of convalescents attached to it. It should be remembered that convalescents from enteric fever, diphtheria, measles, etc., are dangerous to other people for some weeks after they are apparently well, and should therefore not be sent directly back to the Main Camp. Such convalescents, however, will not be shown in the report of sick in hospital.

V.—*A Contact Camp*.—This is a very important camp, and should be situated in the vicinity of the hospital, but separate from it. When a case of infectious or contagious disease is discovered in the Main Camp, the patient will be removed to hospital and the other occupants of the tent will be at once taken to the Contact Camp. Efforts should be made to disinfect all the clothes, etc., of the contacts before such removal. The tent in which the

case occurred will then be disinfected as laid down in Circular No. 125, dated 24th March 1902, be struck, and repitched on an open and vacant piece of ground, to be well aired and sunned, and not again brought into use till after the lapse of three weeks. The original site of the tent will be treated as described in the same Circular and left vacant for three weeks.

If after three weeks' residence in the Contact Camp the contacts remain healthy, they, together with the tent and their belongings, can be sent back to the Main Camp.

VI.—*A Maternity Hospital.* — Every camp should have one or more marquees in the vicinity of the General Hospital, but at a safe distance from it, to which lying-in women should be induced, if possible, to come for their confinements. One or two relatives may be permitted to come to hospital with the woman to look after her.

The above system is more or less in operation in most camps but, as a rule, in a fragmentary manner, and there is not sufficient uniformity in method and detail. Experience has demonstrated that the system laid down in this Circular, if carried out with care and intelligence, will go far to obviate risk of outbreaks of epidemic disease.

Should further information on any point of the above procedure be desired, communication may kindly be made to this office."

The rules speak for themselves. They were carefully observed in all camps, and even the most sceptical among the officials became speedily convinced of their utility. It was seldom that a week passed without the detection of cases of infectious disease in the Observation Camp at one or more centres, but it was very rare for the Main Camp to become attacked.

It will be noted (*vide* paragraph IV) that the risk of convalescents being still possible carriers of disease was not overlooked, and such persons were usually kept under observation in a separate section of the Infectious Disease Camp for some weeks after recovery.

In practice the greatest difficulty in carrying out the scheme was found in the Contact Camp, the inmates of which sometimes resented isolation. When once the system, however, was well understood and appreciated, a certain latitude was allowed in the matter to the Medical Officer in the exercise of his discretion. Circular Order No. 164, subjoined, describes the extent to which liberty of movement was allowed to inmates of the Observation and Contact Camps, but the Medical Officer could at once insist on absolute isolation if the appearance of markedly infectious disease rendered it necessary. Thus little risk attached to the movements of contacts with enteric fever, so long as they fed and slept in the Contact Camp, but equal liberty would not

be allowed in the case of such a disease as diphtheria.

"In continuation of this office Circular No. 126 of 24th March 1902, I have the honour to state that the Director does not wish the inmates of the Observation and Contact Camps to be considered as in quarantine. From a medical point of view they are to be regarded with a certain amount of suspicion as possible centres of infection, and for that reason, and to facilitate the Medical Officer's observation of them, it is as well that they should be kept apart. It will, however, be sufficient if they take their meals and sleep in the Observation and Contact Camps respectively, and should they wish it, they may be allowed to pay occasional visits to their friends in the Main Camp, though such visits should, as far as possible, be discouraged. It will, of course, rest with the Medical Officer to restrict such visits if he thinks it necessary."

Transfers from one camp to another were necessarily frequent. In such cases the following procedure had to be adopted :—

"As several complaints have reached Headquarters of refugees having been received on transfer from another camp without sufficient notice, and as some of such transfers have been sick on arrival, I am instructed by the Director of Burgher Camps to request that in future the following procedure may kindly be observed in all such cases :—

(1) All refugees transferred from one camp to another should be accompanied by a certificate, in the following form, from the S.M.O. of the Camp of despatch :—

‘Certified that the persons noted on the reverse have been medically examined by me and are free from infectious disease, and that, so far as I am aware, after careful enquiry, they have not been in contact with any such disease for 3 weeks.’—S.M.O.

To enable the S.M.O. to carry out this part of the work, due notice of the intended transfer should be given him.

(2) Information of the intended transfer, stating the number of men, women, and children, and probable date of despatch, should be sent to the Superintendent of the camp to which you wish the transfer made, and, on receipt of his reply that he is able to receive and accommodate them, the correspondence should be sent to the Head Office for sanction.

(3) In the case, however, of refugees who have to be transferred at short notice, for military or other pressing reasons, such transfer may be made at once, after medical examination, but a report should be at the same time forwarded to the Head Office for information.”

Standing orders existed for the immediate report by telegram to Headquarters of the appearance of any case of infectious or contagious disease, with a sketch of preventive

measures taken. The telegram was followed up by a full report dealing with the matter.

Another Circular Order ordered the inspection of all children in schools by the Senior Medical Officer twice a week to detect incipient cases of such diseases, and also to note such children as required special diet or tonics. The discovery of such cases was followed by a visit to the tent occupied by such children, to ascertain whether disease was being intentionally or ignorantly concealed.

The effect of these measures was extremely satisfactory, and widespread outbreaks may be said to have ceased from the date of their efficient introduction. As regards the measures for ensuring more hygienic and private surroundings for lying-in women, the measures were only partially successful, and as women would not come to hospital, in some cases separate isolated marquees were pitched with a divisional wall in the centre, and the women permitted to occupy them with their families and to call in midwives or whomever they preferred to assist them in their trouble. It was a compromise, but an improvement on pre-existing procedure.

Very liberal use was made of disinfectants, though fresh air and sunlight were fully utilized. In some camps Thresh's disinfectors were provided and used, but many localities were at high elevations, and additional means were employed. The linen from the hospitals

and Contact Camps was separately washed and dealt with. Enteric infectious stools were burnt in destructors attached to the hospitals. A solution of perchloride of mercury, of a strength of 1 in 1,000 and coloured blue, was employed in latrines, while burning sulphur was principally used for the disinfection of tents and similar structures. Instructions on the point are given in the subjoined Circular Order.

“Disinfection of tents with Sulphurous Acid Gas.—

1. Disinfection should be done *in situ*.
2. Peg the tent down carefully all round so as to leave as few spaces as possible by which the gas may escape.
3. Plug the ventilators tightly.
4. Place 1½ lbs. of flowers of sulphur, or roll sulphur broken into pieces the size of a marble, in an iron vessel, moisten well with spirits, ignite, and place inside tent.
5. Lace the tent doors tightly, and leave for 12 to 24 hours.
6. Sulphurous Acid Gas is heavy, and, therefore, the burning sulphur should be placed as high above the ground as possible.
7. The vessel containing the burning sulphur should be placed in a basin containing warm water so as to minimise the risk of fire. At the same time the water evaporating will tend to saturate the air.
8. After disinfection, strike the tent, and, having repitched it, with raised flies, on an

open piece of ground, leave it there for at least three weeks.

9. From the original tent site and for a distance of 8 feet all round, the soil should be removed to a depth of 4 inches. This area is then to be disinfected with carbolic powder or chloride of lime, filled in with fresh, clean earth, well beaten down, and left vacant for a period of three weeks."

Carbolic acid powder was used when a dry disinfectant was required, and Izal was found very satisfactory for hospital and certain other purposes. Plenty of fresh air and the complete exposure of infected sites to sunlight and atmospheric influences were strongly insisted on. I do not call to mind the occurrence of a fresh outbreak of disease in any infected area which had been evacuated and dealt with in the manner ordered in the Circular Orders, and the occurrence of dropping cases of enteric fever one after another among inmates of a particular tent rarely occurred when the same had been evacuated, the sites vacated, and the family removed to a fresh and clean locality in a Contact Camp. Slight outbreaks of the formerly destructive disease, measles, were not unfrequent, but never attained dangerous proportions, and enteric fever was practically stamped out. Only eight fatal cases occurred in the three months of June, July and August among a population averaging over 40,000 souls.

CHAPTER VIII.

FOOD.

THE rations supplied to the various inmates of the Burgher Camps are shown in the subjoined Tables.

As regards (1), the ration supplied to the burghers in camps, it will be seen to be liberal and suitable. I had at first proposed to modify it in some respects after a consideration of its nutrient equivalents, but as the people thrive upon it, it was determined to leave well alone, and experience showed it to be quite suited for the purpose. It is not always desirable to be guided entirely by the chemical analysis of a dietary, as the habits and customs of the people must be considered. No. 2 shows the ration supplied to the staff. To ensure variety and to meet the expressed wishes of the officials, I allowed one in every five of the staff to draw the monetary equivalent instead of the ration itself, and in this way it was possible for a mess to be provided with various little delicacies which the members desired. No. 3 shows the ration supplied to the native officials and servants in the camps. No. 4 is the ration supplied to orphanages, and is only a slight variation of the diet supplied to the children in the general camp. No. 5 shows the ration

supplied to burghers and their families when leaving the camps for their farms, while No. 6 gives the ration allowed for animals.

I.—RESIDENT REFUGEE RATION SCALE.

(Weekly).

Adults.

Flour or Boer Meal	...	...	7	lbs.
Sugar	...	...	12	ozs.
Coffee	...	...	7	ozs.
Meat	...	...	4	lbs.
Salt	..	...	4	ozs.
Milk	...	..	1	tin.
Soap	...	...	8	ozs.
Samp Rice or Beans	...	...	1	lb.
Vegetables	...	...	24	ozs.

For children over 5 and under 12 years.

Milk 7 quarts (1 bottle per diem).

Flour, Boer Meal or Oatmeal	...	5	lbs.
Sugar	...	12	ozs.
Rice, Beans or Samp	...	8	ozs.
Salt	...	4	ozs.
Butter	...	4	ozs.
Coffee	...	4	ozs.
Meat	...	3	lbs.
Soap	...	8	ozs.
Vegetables	...	24	ozs.

For children over 2 and under 5 years.

Milk	14 quarts (2 bottles per diem).			
Flour, Boer Meal or Oatmeal...	...	3½	lbs.	
Sugar	...	12	ozs.	
Butter	...	4	ozs.	
Salt ...	...	2	ozs.	
Soap...	...	8	ozs.	
Meat for soup	...	2	lbs.	
Soup and Vegetable as supplied by Camp Matron.				

For children under 2 years.

Milk	14 quarts (2 bottles per diem).			
Flour, Boer Meal or Oatmeal...	...	2½	lbs.	
Sugar	..	12	ozs.	
Butter	...	4	ozs.	
Salt ...	...	2	ozs.	
Soap...	...	8	ozs.	
Soup and Vegetables as supplied by Camp Matron.				

II.—STAFF RATIONS.

Daily Ration.

(1)	Bread or	...	...	1	lb.
	Biscuits or	...	...	$\frac{3}{4}$	"
	Flour	...	...	$\frac{3}{4}$	"
(2)	Meat tinned or	...	...	1	"
	Meat fresh or	...	...	1	"
	Fish tinned or	...	...	1	"
	Bacon	...	...	$\frac{3}{4}$	"

(3)	Mealie Meal or	..	...	3	ozs.
	Quaker Oats or	...	...	2	"
	Oatmeal	...	...	2	"
(4)	Coffee or	...	...	2	"
	Tea or	...	...	$\frac{1}{2}$	"
	Cocoa	...	...	$\frac{1}{2}$	"
(5)	Salt	..	...	$\frac{1}{2}$	"
(6)	Pepper	...	...	$\frac{1}{8}$	"
(7)	Sugar	...	...	3	"
(8)	Milk	...	...	4	"
(9)	Vegetables fresh or	...	...	5	"
	Rice or	...	...	2	"
	Vegetables compressed	...	...	1	"
(10)	Candles	...	...	$\frac{1}{2}$	candle.
(11)	Jam or	...	...	4	ozs.
	Canned Fruit or	...	...	4	"
	Dried Fruit	...	...	2	"
(12)	Butter or	...	...	$1\frac{1}{2}$	"
	Cheese	...	...	$1\frac{1}{2}$	"

The ration will thus consist of twelve separate articles which may be chosen from the list above according to the alternatives mentioned.

III.—RESIDENT NATIVE RATIONS.

Weekly Scale.

Flour, Mealie Meal or	...	...	7	lbs.
Boer Meal	...	...	...
Sugar	...	...	8	ozs.

Coffee	...	...	...	4	ozs.
Salt ...	...	...	...	4	"
Meat	...	...	...	1	lb.

IV.—SCALE OF WEEKLY RATIONS FOR ORPHANS.

A.—For adults and children over 12 years.

Flour	...	...	...	7	lbs.
Sugar	...	...	...	12	ozs.
Coffee	...	...	..	7	"
Meat (fresh)	...	...	...	4	lb.
Salt	...	...	...	4	ozs.
Soap	...	...	...	8	"
Samp, Rice or Beans	...	...	...	1	lb.
Vegetables	...	...	...	24	ozs.
Oatmeal	...	...	...	12	"
Butter	...	...	...	4	"
Jam	..	...	...	4	"
Tea	...	...	...	1	oz.
Milk	...	...	...	1	tin.

B.—For children over 5 and under 12 years.

Milk (2 tins)	...	...	...	7	bottles.
Flour	...	...	...	5	lbs.
Sugar	...	...	...	12	ozs.
Rice, Beans or Samp	...	...	...	8	"
Salt	...	...	...	4	"
Butter	...	...	...	4	"

Coffee	...	...	...	4	ozs.
Meat (fresh)	...	...	...	3	lbs.
Soap	...	...	...	8	"
Vegetables	...	...	...	24	"
Oatmeal	...	...	...	12	"
Jam	...	...	...	4	"
Tea	...	...	...	1	oz.

C.—For children over 2 and under 5 years.

Milk (4 tins)	...	...	...	14	bottles.
Flour	...	...	...	3½	lbs.
Sugar	...	...	...	12	ozs.
Butter	...	...	...	4	"
Salt	...	...	...	2	"
Soap	...	...	...	8	"
Meat	...	...	...	2	lbs.
Oatmeal	...	...	...	12	ozs.
Jam	...	...	...	4	"
Tea	...	...	...	1	oz.
Corn Flour or	...	...	...	8	ozs.
Sago	...	...	...	8	"

D.—For children under 2 years.

Milk	...	...	...	14	bottles.
Flour	...	...	...	2½	lbs.
Sugar	...	...	...	12	ozs.
Butter	...	...	...	4	"
Salt	...	...	...	2	"
Soap	...	...	...	8	"

Meat (fresh)	...	...	...	2	lbs.
Jam	...	...	...	4	ozs.
Corn Flour or	...	...	...	8	"
Sago	...	...	...	8	"

V.—RATION SCALE FOR THIRTY DAYS'
SUPPLY TO BURGHER FAMILIES LEAVING
FOR THEIR FARMS.

Per Head—Weekly.

Adults.

Flour or Boer Meal	...	...	...	7	lbs.
Sugar	...	...	...	12	ozs.
Coffee	...	...	...	7	"
Meat (tinned)	...	...	...	4	lbs.
Salt	...	...	...	4	ozs.
Milk	...	..	...	1	tin.
Soap	...	...	...	8	ozs.

Children 5 to 12 years.

Milk	...	...	...	2	tins.
Flour or Boer Meal	...	...	...	5	lbs.
Sugar	...	...	...	12	ozs.
Salt	...	...	...	4	"
Butter	...	...	...	4	"
Coffee	...	...	...	6	"
Meat (tinned)	..	...	...	3	lbs
Soap	...	...	...	8	ozs.

Children under 5 years.

Milk	...	...	...	5	tins.
Flour or Boer Meal	...	...	...	3	lbs.
Sugar	...	...	...	12	ozs.
Butter	...	...	...	4	"
Salt	...	...	...	2	"
Soap	...	...	...	8	"
Meat (tinned)	...	...	...	1½	lbs.

VI.—APPROVED FORGE ALLOWANCE.

(Subject to the discretion of the Superintendent.)

Horses	...	Hay	10	lbs.	and	Oats	8	lbs.
Mules	..	"	8	"	"	"	6	"
Donkeys	..	"	4	"	"	"	2	"

As stated elsewhere, the feeding of the population of the camps was a task of great magnitude. Practically everything had to come from the coast, hundreds of miles away, and over a line of railway frequently choked with military traffic and subject to frequent attacks by the enemy. Save for the preference given to the Burgher Camps Department over the general civil traffic, it would have been impossible. But, as a matter of fact, at no time was any camp pinched for supplies. It was necessary not to live from hand to mouth in the matter, but to keep up large reserves to cope with emergencies, and a large depôt at Pretoria was established with this view. At the declaration of peace there were six weeks'

supplies thus held in reserve, and it is impossible to overstate the importance of the fact when it is recognized how essential it was to ration at once the thousands of surrendering burghers who came in from off commando to the camps and clamoured to be sent back with their families and a month's supply of food, to their farms. Fortunately I had in the Chief Buyer and his Assistant two most excellent officials, and, principally owing to their strenuous exertions, it was found possible to meet the strain.

As regards the items of the rations in detail. Meat was usually chilled beef and mutton purchased at the coast, supplemented, where it was unavoidable, by the same articles tinned. The only other source of supply was from cattle taken from the enemy, but this was uncertain, and moreover the animals were usually in a wretched condition. The chilled meat was almost uniformly of good quality and was much preferred to the captured stock. It was in the nature of things that the supply of fresh vegetables sometimes fell short, and I am of opinion that the almost entire absence of scurvy in the camps was principally due to the general excellence and sufficiency of the chilled meat ration. Meat issued to burghers leaving for their farms was necessarily tinned.

Some Boer meal was available locally, but flour, which was generally supplied, was principally American. Coffee, salt, sugar, jam

and rice, all came from the coast. "Samp," which is ground Indian corn, was purchased mostly in the Colony, and vegetables were procured either from the larger towns or from the camp gardens. Milk was a great difficulty. Milch cows were sometimes procurable from columns operating in the field, but this source could not be relied upon. Sterilized milk was purchased in the Colony, but the supply was small and costly. Tinned milk ("Ideal" and "Milkmaid" brands usually) had to be largely used. It was soon found that only a certain proportion of the ration, if issued in tins, ever reached the children for whose consumption it was principally designed. The adult Boers used it as a confection spread upon bread like jam, and one epicure was seen to have superadded sardines. A Circular Order was accordingly issued that all milk was to be given after dilution to the proper strength with water, and in this way it is believed the ration more generally reached those for whom it was intended. Coffee was an item which, although not essential, was greatly prized by the burghers. A threat to reduce the ration of this article was generally effective in minor cases of insubordination. All stores were periodically examined by the Medical Officers of camps, and if, upon their representation, any consignment was found to be of inferior quality, it was returned to the consignors. But such instances were rare, and the Depart-

ment was such an excellent customer that the leading firms with whom it dealt were very careful not to run the risk of losing the connection.

Rations, unless perishable, were issued once a week, and every family was provided with a card upon which was stated the exact amount of each article to which it was entitled. The scene at the issuing stores was a very lively one, and it could be readily recognized that the Dutch housewives were not likely to be deprived of any portion of the ration which was their due. Wood and coal were also supplied for baking and cooking purposes. The Store-keepers' accounts were made up from the ration cards issued to the burghers, and schedules and returns, when prepared, were forwarded every month to the Chief Buyer at Headquarters. The stores were checked and the accounts examined at frequent intervals by the Travelling Accountants.

CHAPTER IX.

CONCLUSION.

IN conclusion, I firmly believe that it may be justly claimed that the work performed by the Department was by no means limited to the preservation of the lives, and the maintenance of health and comfort, of the inmates of the camps. When once matters had settled down, distrust and dislike gave way to confidence and good feeling. The relations of the staff to the people were usually excellent, and it would be easy to give much evidence pointing to the fact. In more than one instance the surrendered burghers, when they returned to the camps upon the declaration of peace, presented addresses, signed by hundreds of such men, thanking the Superintendent for the care and kindness which had been shown to their wives and children. There is no doubt but that false reports as to the treatment of the families had been widely prevalent in the commandos, and when they came in and the real state of affairs was discovered, the general feeling was one of relief, and perhaps even gratitude. Several prominent Boer leaders have so expressed themselves to me.

Then the excellent teaching in the schools, the training of young Boer girls in the hospitals

and by means of ambulance classes, and the steady inculcation of habits of cleanliness, system and order, were all most valuable lessons and experiences, and may fairly be expected to bear fruit in time. My own opinion of the attitude of the people in the matter is that among the older people some bitterness will always exist, but that the younger people and children have carried away a pleasing recollection of their sojourn in the camps. More than this it would be unreasonable to expect. It is probable that in many cases the monotony of life on a veldt farm will presently create among the younger Boers a craving for the busier and more intellectual life of which they have been given a glimpse. Herein may lie the germ of a desire for education in an extended sense.

It will, I think, be agreed by all who are closely acquainted with the agricultural Boer, that had the camps never existed and the wives and children remained undisturbed on their farms, the deeply ingrained traditions and customs of the people would have proved an insurmountable barrier to the introduction of European education and progress, for many years to come. An object-lesson which would teach the first step in progress, that is a dissatisfaction with existing conditions, was, from this point of view desirable, to expedite and stimulate improvement. This, at least, the Burgher Camps supplied. I feel confident that this craving for "more light" really does exist, and doubtless the demand will be met.

I have not cumbered this brief history with a detailed account of the repatriation operations performed by the Burgher Camps Department during the critical period of some two months between the declaration of peace and the establishment of a Repatriation Department, since the matter has been dealt with in the final report on the Burgher Camps Department (Blue Book, Cd., 1553, April 1903). This report sufficiently indicates how difficult the position would have been, pending the establishment of a special organization, had the Burgher Camps Department not been in existence, or had it failed to cope with the emergency.